

Sandia National Laboratories

Sandia National Laboratories' poster for the December 2002 Executive Safety Summit focuses on a "Clean and Green" Sandia. L. Albert (Al) West is Sandia's senior management representative attending the Summit. The poster provides examples of how SNL's Integrated Safety Management System supports and promotes clean and green policies that keep our people safe, minimize waste, protect the environment, and save money.

Examples include:

- **Custodial Services Using Safer and Fewer Chemicals and Lowering Cleaning Costs**
Sandia's Custodial Services Team reduced the number of different cleaning chemicals it uses from 119 to only 15 that were judged safer for employees and the environment, involving zero hazardous waste. Labor costs associated with managing the larger chemical inventory were also reduced. These and other similar measures have allowed Custodial Services to reduce its annual per-square-foot cleaning costs from \$2.19 in 1995 to \$1.23 in 2002.
- **Comprehensive Pollution Prevention Program Is Big Success in Fleet Services Dept.**
Sandia's Fleet Services Dept. has done much since the mid-1980s to prevent pollution and minimize waste, including mixing used motor oil and transmission fluid with diesel fuel and using the mixture as a motor fuel; reclaiming used antifreeze (1989) and since 1995 using biodegradable antifreeze in all liquid-cooled equipment; filtering and reusing vehicle wash water; removing/reclaiming waste oil from used filters and recovering/recycling the used metal; using soy-based hydraulic oil in place of petroleum oil; using non-solvent-based cleaners, and using bio-based diesel B20 and ethanol/gasoline mixture (E85), compressed natural gas (CNG), and electric vehicles that emit much less pollution than gasoline-powered vehicles. Sandia's fleet now has many Alternative Fueled Vehicles, including 200 E-85, 40 CNG, 19 electric, and 40 Neighborhood Electric Vehicles.
- **Environmental Restoration Project Reduces Waste and Pollution**
Sandia's Environmental Restoration (ER) Project and Pollution Prevention staffs identified waste reduction opportunities in more than 20 areas, with potential savings of more than \$1 million. Examples: Using washable coveralls and reusable boots instead of disposable ones at ER work sites, eliminating about 5,900 pounds of waste and saving more than \$30,000 annually; screening for and segregating clean metals in the field at ER sites and selling them to smelters and recyclers; and selling cleaned circuit boards to recyclers. Overall, Sandia's ER Project has reduced the mass of waste generated by more than 30 percent, far exceeding the DOE goal of 10 percent.
- **"Sustainable Design" in Major Construction Project Saves Energy, Water, Money**
Advanced energy efficiency and water conservation measures are being used to reduce energy usage by 30 percent and water usage by 40 percent in Sandia's huge new 377,000-sq.-ft. Microsystems Engineering and Sciences Applications (MESA) facility, now in the early stages of construction. By far Sandia's largest-ever construction project, MESA will cost nearly \$500 million by the time it is completed. Designing and building it using advanced energy- and water-conservation technology will save millions of dollars and preserve precious energy and water resources over the facility's expected long lifetime.
- **Major Awards received by Sandia in 2002**
 - Sandia received the 2002 White House "Closing the Circle" Award for our Affirmative Procurement program that promotes the purchase of environmentally preferable products.
 - Sandia was selected as the 2002 U.S. EPA Waste Wise Program Champion," recognizing our comprehensive solid-waste recycling and reduction program.
 - Sandia and DOE received three Gold Awards from the City of Albuquerque's Industrial Pretreatment Program in 2002 for 100 percent compliance with permit reporting and discharge limits.
 - Five different Sandia groups received 2002 "Green Zia" Environmental Excellence Awards from the State of New Mexico for continuous environmental improvement.